D.5.2.2 ACTION PLAN

WP5 – Developing tools and harmonizing services for a sustainable intermodal mobility

5.2 – Improving accessibility of transport nodes and harmonizing services for people with special needs

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Table of Contents

1. Introduction

In the context of the MIMOSA project, this document aims at providing a strategic contribution on the particularly delicate issue of accessibility, in a sustainable and smart key, for people with special needs or with reduced mobility. However, it is quite clear that this is a theme which goes beyond any territorial boundary since it deals with the human rights of people who, for any reason, have a disadvantaged condition that directly impacts on their ability to participate in the democratic and social life of a community, but also to access goods and services.
Nowadays, there is no doubt that these rights have acquired a "universal" value, which is stated by the fact that the UN Declaration on the Rights of Persons with Disabilities (i.e., December 2006) has been signed by more than 150 Countries. The European Union itself, as Institutional Body, embodied this vision. In fact, since the 1996 it has been adopting several 10-year strategies that specifically aimed at the concrete implementation of the rights recognized to people with special needs. Furthermore, thanks to the Lisbon Treaty (2009), the "Charter of Fundamental Rights of the Union" has acquired the "status" of "source of primary law".
With reference to the concepts of accessibility and mobility, it is worthwhile to briefly draw attention at least on the following three aspects:

- Firstly, the terms accessibility and mobility are closely interconnected, just as in transport terminology so also in the normative vision. That is, the notion of accessibility is recognized as having a static meaning (i.e., access to buildings, places, information, etc.), as much as a dynamic value (i.e., moving from one place to another). Also, the same interrelationship between the two terms is recognized (i.e., there could be no accessibility without mobility and vice versa);
- Secondly, when it comes to the rights of people with special needs, the relationship between a person and the surrounding environment is brought “at the center". Hence, the vision that disability comes from the interposition of specific obstacles/barriers in the physiological manifestation of the peculiar person-environment relationship. It follows that to recover, or at least to attempt to recover, a physiological relationship (in order to guarantee the principles of non-discrimination, autonomy and independence of people with special needs), it is necessary to try to remove or reduce these obstacles or barriers;
- Thirdly, when dealing with barriers, it should be beard in mind that the term does not refer only to those concerned with the architectural heritage, but it makes reference to a broader concept of "environmental barrier". However, the most significant aspect consists in referring to a concept that is independent of the condition of disability and considering instead any obstacle to be removed, due to the fact that it is limiting for any person and makes the enjoyment of the good or service uncomfortable and unsafe.

In line with these considerations, even in relation to the transport sector the European legislation, on one hand, does not use the term "disability", but rather refers to passengers with reduced mobility or with special needs and, on the other hand, it does not foresee a specific legislation but,

on the contrary, it includes the discipline to protect these people within the general laws concerned with the rights of passengers using the various transport modes (i.e., air, rail, maritime and inland waterways and road transport).
As stated by Marra, it should be underlined that the concept of mobility of people with special needs is not just a mere semantic definition. Actually, it implies that "…i) the protected right is the on related to mobility itself, ii) the pathological conditions of people are disregarded, iii) what matters is to guarantee an equal use of goods and services by as many people as possible and iv) people's special needs should not be forgotten but rather emphasized, so as to become aware of and consider them in order to guarantee equal opportunities…" (Marra, 2021).
Within the general goal of improving the quality and sustainability of cross-border mobility between Italy and Croatia (according to the path traced by the new European "Green Deal" on green and smart mobility), the MIMOSA project addresses the issues of accessibility and mobility of people with special needs both by proposing a qualitative analysis (i.e., within WP3) which highlights that its improvement is, or should be, a priority for intervention (i.e., just below the reduction of the environmental impact of maritime transport) and by the concrete implementation (i.e., in WP5) of innovative solutions to make spaces more accessible, as in the case of beach facilities. These latter are the main attractors of the tourism demand, which is in turn the main component of traffic flows in the Program area as well as in seaports, that are the most suitable nodes of the cross-border transport system to support sustainable and multimodal development.
Furthermore, the MIMOSA Project approaches this sensitive topic according to a more "strategic" perspective by proposing an Action Plan for sustainable mobility, which includes an action aimed precisely at the accessibility of people with special needs (i.e., WP3). In the context of WP5, in this document such action is further developed, suggesting some indications to be discussed with competent European, national and regional authorities in order to give a contribution on the complex path that leads to the concrete implementation of people's universal rights.
In this sense, after a brief presentation of the objectives of action 5.2 (i.e., dedicated to accessibility of people with special needs) and of this document in chapter 1 and the description of the adopted methodological approach in chapter 2, chapter 3 presents a review of the state-of-the-art aimed at summarizing the major points regarding the universally recognized principles on the topic of the rights of people with special needs, the contribution of European macro-regional policies (EUSAIR) on the way to concrete implementation of these principles and, finally, the contribution offered by the MIMOSA project up to now. Subsequently, chapter 4 presents the strategic indications identified with the idea of contributing to increase the effectiveness of European and national regulations and strategies on these issues. Finally, the chapter 5 contains some concluding remarks.

2. Objective of the document and methodological approach

This chapter first illustrates the objectives of the document by placing them in the specific reference context represented by WP5 and its Activity 5.2 (named "Improving accessibility of transport nodes and harmonizing services for people with special needs"). Subsequently, the methodological guidelines which stand at the basis of this document are exposed.
Activity 5.2 follows the "logica filum" of the MIMOSA Project by integrating activities of WP3, in which, on one hand, an analytical approach has revealed how the issues related to the accessibility of people with special needs have a significant value in terms of intervention priorities and, on the other hand, an Action Plan of general scope was defined for the promotion of sustainable mobility in the Program area, including a specific strategic action to support passengers with special needs, coherently with the European regulatory approach in this area.
In fact, Activity 5.2 mainly has the following 3 objectives:

- To define and implement a pilot action (Project action 5.2.1) concerning innovative solutions for improving the accessibility of people with reduced mobility to places, such as beach facilities, which are among the major attraction factors of tourist flows between Italy and Croatia (taking into account that this motivation determines the vast majority of the people flow);
- To propose, also through a participatory approach, some solutions to improve the accessibility of people with special needs to seaports and maritime transport, both with regard to infrastructures and services (Project action 5.2.3);
- To identify (Project action 5.2.2, which is the specific object of this document) a set of indications with a strategic value aimed at harmonizing services to improve the accessibility of people with special needs to transport nodes.

According precisely to this vision, the MIMOSA project adopts the principle that an inclusive, sustainable and safe mobility promotes a better accessibility to places and, thus, can enhance the well-being, the quality of life and the social inclusion of people whose relationship with the surrounding physical and social environment would otherwise transform from a physiological to a pathological status.
To achieve the just mentioned goal related to Project Activity 5.2, which this document refers to, the Working Group built up by the Autonomous Region of Friuli-Venezia Giulia has developed a methodological approach based on the following steps:

- To highlight the key principles which inspire the regulatory approach and the policy guidelines at European level, also in their translation to both the national and regional levels, in order to create a strategic reference framework;
- To identify and analyze the MIMOSA Project documentation related to the issues of accessibility and mobility of people with special needs;

• To outline and share with the Partnership a set of indications aimed at allowing the achievement of the specific goal of the deliverable 5.2.2, but which still remain within the strategic context of the MIMOSA Project.

With regard to the last methodological aspect, the adopted approach has been based on the comparison between the legislation principles and the "status quo" emerging from European strategic documents and the achievements of the MIMOSA Project as well. This assessment has allowed to identify, first of all, the presence of "missing links" between regulatory principles and actual implementation. Then, the elaborated measures have been targeted to contribute to reduce the highlighted gaps.
The specification of the actions, or measures, or strategic indications has been carried out according to a twofold level of governance: a "strategic" and a "tactic" level. The former refers to the definition, implementation and monitoring of policies that are under the responsibility of European and national bodies, while the latter refers to the development of solutions and measures which compete to the "market".
Finally, in accordance with the design spirit of the MIMOSA Project, the developed measures were presented to the Partnership at the Steering Committee Meeting held in Trieste on 28th February – 1st March 2023, just as the first stage of a sharing process. Subsequently, a draft version of the deliverable has been made circulating among Partners and emerged observations and comments have been evaluated and incorporated in an appropriate way.

3. Background

3.1 Equality in Europe

Main aspects of sustainable mobility of disabled people in the 2021-2030 European Strategy

The commitment and the attention put by the European Union (hereinafter referred to as EU) on disabled people have almost half a century of history, starting from the first Council resolution in 1974, in which the development of an action plan for the occupational and social integration of disabled people was suggested. Until that time, the rights of disable people "were not part of the European regulatory context and the then-current treaties did not include any reference to disability" (Ferri, 2023). On the contrary, from the first resolution to the beginning of the '90s, four action plan were developed, mainly in order to facilitate disabled people to access education and the professional world.
As a matter of fact, considering that in the past the Community action was quite limited and consisted in defining regulatory instruments which were non-binding or aimed at the data exchange among Member States, great accomplishments have been achieved from '70s till nowadays. In this regard, it appears significant to briefly recall some of the milestones of the normative evolution, since the concepts introduced during this process are particularly relevant

with respect to the MIMOSA project. Adopting the schematization proposed by Ferri (op. cit.), the following milestones can be underlined:

- the approval of the European Community Strategy on disabled people in 1996 represents the first acknowledgement of disability as an intervention field of the European policy, marking a turning point in the European action. Among the various aspects characterizing this Community act, a change in perspective was made introducing the concept of the "disability social model", which considers disability as a consequence of social factors and not of an impairment of a single person (please refer, for example, to Barnes, 2008);
- the entry into force of the Amsterdam Treaty in 1999 gave the power to the EU (then called European Community) of adopting measures aimed at fighting discrimination, including the one concerning disability (Article 19 of the Treaty On the EU, hereinafter referred to as TOEU). Indeed, based on this Treaty (especially on the declaration attached to Article 114), many normative acts (regarding telecommunications, transport, public procurements, structural funds, etc. have been developed, including provisions on disability, which were often meant to ensure the accessibility to certain products or services. Among these acts, the Directive 2000/78/CE of the European Council is worth to be pointed out, since it is the very first regulatory intervention developed to ensure the right to work to disabled people and establishing a general framework for the equal treatment with regard to employment and employment conditions. Besides, the Directive imposes to employers the adoption of reasonable arrangements to foster the integration of disable people (Article 5);
- the EU Charter of the Fundamental Rights, approved by the European Council in Nice in 2000, includes two specific provisions on disability (Articles 21 and 26), on one hand, acknowledging the non-discrimination principle and, on the other hand, establishing that the EU "acknowledges and respects the rights of disabled people to benefit from measures aimed at ensuring them autonomy, social and professional inclusion, and participation in community life";
- the entry in force of the Lisbon Treaty in 2009 determined a reinforcement of the EU competencies regarding disability. Furthermore, this Treaty:
    - modifies Article 19 of the TOEU in the section concerning the legislative procedure necessary to adopt measures to fight discrimination, strengthening the role of the European Parliament;
    - introduces the so-called non-discrimination horizontal clause (Article 10 of the TOEU), which aims at including the fight against discrimination in all the EU policies and actions, thus imposing a mainstreaming approach;
    - radically changes the status of the EU Charter of Fundamental Rights, associating it the same (binding) legal value of treaties and, thus, turning it into a source of primary law.

A fundamental milestone of the EU normative evolution is represented by the Convention of the United Nations (UN) on the Rights of Disabled People (hereinafter referred to as CRDP), which was adopted by the UN General Assembly on December 13th 2006 and entered in force on May 3rd

2008. Nowadays, the Convention has 175 Contracting States (including also Italy and Croatia) and it is the first international convention which the EU acceded to. Notably, the EU signed the convention in 2007 and ratified it three years later. Taking inspiration from the abovementioned "social model", the CRDP introduced a radical change of perspective: the disability condition is referred to the presence of environmental and social barriers, imposing the Contracting States to avoid these latter.
Dignity, individual autonomy, equality, accessibility, social inclusion, and acceptance of disability as part of the human diversity are the main principle on which the Convention is based on. Substantially, disability becomes a matter of "rights, participation and citizenship" (Marra, 2021). A relevant consequence of this new perspective consists in the shift from the definition of an "individual problem which moves compassion…" to a "social" approach, i.e., a shift from the individual to the systemic sphere.
Overlooking the legal implications generated by the adoption and implementation of the Convention (please refer to Ferri, 2016 and Marra, 2021), it should be emphasized that the Contracting States should:

- undertake or foster the search and the development of products, services, devices, and tools realized according to the standards of the "universal design" (as defined in Article 2 of the Convention), limiting as much as possible their rearrangement and cost to accommodate the specific needs of disabled people and favoring their availability and use;
- foster the availability and the use of new technologies suitable for disabled people, including Information and Telecommunication Technologies (ICT), assistive products for mobility, assistive devices and technologies, giving priority to the least expensive technologies;
- provide disable people with accessible information concerning assistive products and services for mobility, assistive devices and technologies, but also different forms of assistance, support services and equipment.

Therefore, the main goal of European regulations is to ensure disable people full accessibility to the living environment, both in terms of static aspects (i.e., accessibility to buildings) and dynamic aspects (i.e., concerning people mobility), eliminating all the barriers (not only at architectural level) which hinder or limit a seamless and safe use of products and services. To emphasize these concepts, the indication "disable people" is substituted by the wordings "people with reduced mobility" or "people with special needs".
With regard to mobility, it should be underlined that Article 20 of the Convention not only states that the right of personal mobility should be guaranteed by adopting effective measures, but also that such right should be realized along with the provision of the greatest possible independence, "ensuring disable people freedom of choice, access to mobility aids at affordable costs and facilitating the mobility of disable people in the ways and times they prefer and not imposed by transport operators" (Marra, 2021).

All these principles inspired the European legislation on transport passenger rights, which considers the following Regulations:

- Regulation (EC) No 1371/2007 of the European Parliament and of the Council on rail passengers' rights and obligations;
- Regulation (EU) No 1177/2010 of the European Parliament and of the Council concerning the rights of passengers when travelling by sea and inland waterway;
- Regulation (EC) No 1107/2006 of the European Parliament and of the Council concerning the rights of disabled persons and persons with reduced mobility when travelling by air;
- Regulation (EU) No 181/2011 of the European Parliament and of the Council concerning the rights of passengers in bus and coach transport.

In all these Regulations, not only is enshrined the right of mobility to people with reduced mobility, but also the following principles are stated:

- The right to service quality;
- The obligation for service providers to provide training to all the staff.

Despite the various accomplishments achieved since the '70s, the actual and full implementation of the defined principles still needs some time and effort considering the radical transformations which imposes to the society. Indeed, nowadays disabled people still face relevant barriers and are subjected to a greater risk of poverty and social exclusion (EC, 2023). To foster the actual implementation of the rights of disabled people, who are estimated at almost 80 million people in Europe (EC, 2021), after the abovementioned 1996 strategy, the EU adopted two more strategies: the first one in 2010 (EC, 2010) and the second one in March 2021, covering the 2021-2030 time horizon. The former enabled to record significant steps forward in the elimination of barriers in Europe and in the emancipation of disabled people, allowing them to actively participate to society and economy. Bearing in mind the different kinds of disability (including physical, mental, cognitive, and long-lasting sensorial disabilities according to Article 1 of the UN Convention), the latter, which is based on the results of the former, has the objective of ensuring disabled people:

- To enjoy human rights;
- To have the same opportunities and equality to access the society and economy;
- To be able to decide where, how and with whom to live;
- To move seamlessly around Europe regardless assistance needs;
- Not to be discriminated.

Especially with reference to the concepts of accessibility and mobility, the Strategy defines the former at Article 2 as "an enabler for rights, autonomy and equality" and states that regulations on passengers' rights ensure people with disabilities with reduced mobility the right not to be discriminated in accessing transport services and to receive free assistance when travelling by air, train, sea or bus. Among the planned initiatives, the most significant ones are listed below:

- The creation of a European resource center, called “AccessibleEU”, to enhance the consistency of accessibility policies and to facilitate the access to related information, with the aim of horizontally sharing good practice, offering insights to develop international and European policies and developing tools and regulations to facilitate the implementation of European law;
- The creation of an inventory of activities concerning rail infrastructures, i.e., the accessible areas of rail infrastructures, with the aim of identifying existing hindrances and barriers to accessibility;
- The review of the legislative framework on passengers’ rights, including the rights of people with disabilities or with reduced mobility not only in the different transport modes, but also in the planning at transnational level (TENT-T network) and at urban level, according to the Strategy for sustainable and intelligent mobility (EC, 2020).

With respect to the freedom of movement and residence, which Article 4 is dedicated to, the Strategy acknowledges the existence of barriers in the recognition of rights when disabled people move from one country to another, for any reason (including tourism), also in cross-border contexts. To overcome these barriers, starting from the proposal of a “EU Mobility Card” suggested in the previous Strategy, from the experience of the pilot project (2022-2023) on the “EU Disability Card” which is ongoing in eight Member States (including Italy and Slovenia), and from the parking card for disabled people, by 2023 the European Commission is intended to create a “EU Disability Card” to be recognized in all the Member States.
Last but not least, with reference to the independence of disabled people and to social services (Article 7), the European Commission points out the relevant role that the acceleration in the digital transformation and the green transition can have. Thanks to the use of ICT, artificial intelligence and robotics, new in-presence and remote services specifically dedicated to accommodate disabled people’s needs can be developed in the future. Nevertheless, to effectively use those technologies, it is necessary to remove all the accessibility barriers concerning disabled people and to invest in their digital skills. In line with this vision, after an accurate evaluation, a possible review of the directives on web accessibility, on the Electronic Communications Code and on audiovisual media services can be performed, along with the definition of an action plan for Public Administrations.

3.2 The European Regional policy

In line with the above, the accessibility to products and services by part of disabled people represents one of the key issues of EUSAIR in the field of its sustainable tourism offer, for which the creation of new products and services or the improvement of the existing ones has been proposed in order to meet the specific needs of such users, other than those of peculiar target groups like seniors, young people, schools, and low-income families. Indeed, based on the vision suggested in the Action Plan concerning the EUSAIR included in the 2020 Staff Working Document (SWD) of the European Commission, the creation of a network of interconnected excellences in the various countries of the Adriatic-Ionian Region providing all the year around an accessible

tourist offer, in terms of destinations, attractions, sights, and services, could allow to increase the attractiveness of the Region both in high and low season. To this end, as indicated in the SWD, examples of possible projects to enhance the accessibility of tourist products and services in the Region at hand consider the following initiatives:

- the improvement of specific skills and training concerning accessibility along the whole tourism supply chain;
- the dissemination among stakeholders of good practices in the field of accessible tourism;
- the promotion of the Adriatic-Ionian Region as an accessible tourist Region in the main reference markets through the use of new technologies and social networks, orienting the campaign towards the different target groups.

Thus, to implement these projects it is necessary to involve multiple actors other than disabled people, who would be directly affected by the initiatives, which include the most relevant tourist authorities and agencies, tourist operators, small and medium enterprises, and training providers. The accessibility of the tourist offer for the abovementioned categories, in particular at physical level for users with impaired mobility, is one of the main focuses of the Council of Europe cooperation project called “Cultural Routes”, which aims at developing and fostering a series of routes according to an historical itinerary, a cultural concept or a phenomenon with a transnational significance for the understanding and the respect of the common European values. Tourist products envisioned in the project, such as walking, cycling and sailing routes, are intended to diversify and enlarge the conventional tourist offer of the Adriatic-Ionian Region to hinterland economies, on the basis of the policies for culture and the transnational heritage of EUSAIR.

3.3 Results of the MIMOSA Project

The MIMOSA Project arises in close connection with the European principles set in the context of the “Pillar of Social Rights”, just like the new strategy on sustainable and intelligent mobility (EC, Comm 2020/789) acknowledges that, based on the definition of its vision (Article 8), “such evolution should not let anyone behind: it is fundamental to make mobility available and affordable to anyone, to better connect rural and remote regions and to make them accessible to people with reduced mobility or disabilities, and that the mobility-related sector provides good social conditions, redevelopment opportunities and interesting jobs. The European Pillar of Social Rights represents the reference at European level to ensure that green and digital transitions are socially equal and fair” (EC, 2020).
Indeed, as reported in this section of the document, by discussing the issue of improving multimodal accessibility in the Program area the MIMOSA Project poses the attention to the needs of people with different disabilities and with reduced mobility according to three perspectives:

- an analytic perspective, since the project analyses users’ behavior (Action 3.1) with the aim of providing policy recommendations both on features that the transport system could/should have to be considered appealing by the demand, and on the market segmentation;

- a strategic perspective, since in the context of the Action Plan for sustainable mobility (O.3.5) the project proposes a specific strategy for people with reduced mobility, which actually represents the essential premise to this document;
- an operational perspective, since the project considers the actual accessibility of people with reduced mobility, i.e., including not only the spatial-temporal transition from one place to another but also the possibility of benefiting from onsite products and services (with specific reference to the possibility of accessing beach facilities addressed in Action 5.2).

The most significant outputs are synthesized in the following of this section in function of the main object of the present document, referring the reader to the respective deliverables for more details.

As far as the analytic approach is concerned, firstly, it should be highlighted that the MIMOSA Project deals with the topic of improving multimodal accessibility in the Program area starting from an in-depth demand analysis which considers not only quantitative aspects but also qualitative and sociological aspects, with the aim of understanding the preferences, motivations and habits that characterize travelling choices of people performing cross-border transfers within the Program area for any reason. In this regard, the Ca' Foscari University of Venice (please refer to Ca' Foscari University of Venice, 2021 for additional information) carried out a statistical survey through an online questionnaire, which was based on a consolidated theoretical framework, on one hand, to evaluate the relationship expressed by respondents between “importance” and “performance” with respect to some qualitative features of cross-border transport services and, on the other hand, to obtain information to comprehend how the demand perceives different aspects and features of the provided service. This latter analysis is based on the application of the “Kano model”, which constitutes a useful tool to target resources to the essential aspects for users’ satisfaction orientation, since it enables to distinguish aspects considered necessary from those considered secondary.

Referring to the objectives of this document, it is useful to stress that among the ten examined attributes (indicated in Table 1), 40% of the respondents considers as an essential aspect (column entitled “Must be”) the fact that the destination is accessible by people with reduced mobility, revealing a quite significant level of awareness for disabled people’s rights. On the contrary, 28% of the respondents proved “indifferent” to such consideration, indicating that the way to an actual and full implementation of disabled people’s right is still long.

Besides, it is important to notice that, interpreting the results of the analysis in terms of Opportunities and Threats according to the SWOT methodology, as indicated in Figure 1, the lack of accessibility for disabled people would represent a serious threat in travelers’ perception in the face of the opportunities coming from attributes like the free bike rental, the availability of a mobile App with complete information on the whole journey and the presence of areas only for pedestrian and zero-emission vehicles.

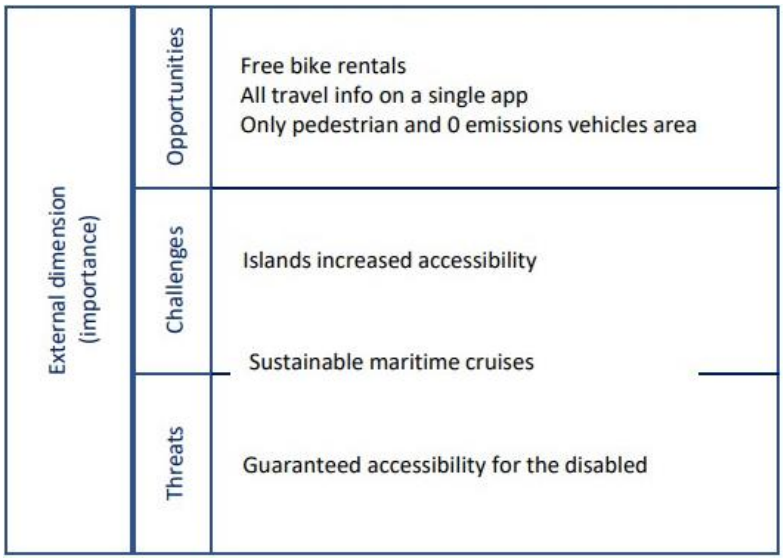
Table 1: Shares of Kano-analysis type of requirement by characteristics/situations proposed in the MIMOSA Project

	Attractive	Must be	One dimensional	Indifferent	Reverse
Free bike rental	40%	3%	20%	36%	n.s.
Area closed to vehicles	30%	3%	10%	44%	13%
Guaranteed accessibility for the disabled	7%	40%	25%	28%	n.s.
Whole trip feasible with public transportation	18%	19%	24%	36%	n.s.
Door to door luggage service	26%	7%	11%	53%	3%
All travel info on single App	34%	10%	24%	31%	1%
Sustainable maritime cruises	11%	27%	42%	18%	n.s.
Only pedestrian and 0 emissions vehicles area	34%	11%	16%	31%	7%
Entire travel feasible by train	30%	6%	21%	39%	4%
Islands increased accessibility	27%	11%	36%	25%	n.s.

<3% n. s.	< 10%	10% - 24%	26% - 39%	> 40%

Source: Ca' Foscari University of Venice (2021b)

Figure 1: Opportunities, challenges and threats emerging from the Kano analysis



Source: Ca' Foscari University of Venice (2021b)

In the interest of this document, another relevant result reported in the deliverable D.3.1.2 concerns the assessment of intervention priorities performed based on the weighted sum of the share of each Kano-analysis type of requirements. Table 2 indicates that accessibility for people with reduced mobility has a very high level of priority, which is lower only than the one associated to the reduction of the environmental impact related to maritime transport, but much greater than the one of all the other examined attributes.

Table 2: Priorities emerging from the Kano analysis

	P	Indexed 1st = 100
Sustainable maritime cruises	0,634	100
Guaranteed accessibility for the disabled	0,616	97
Islands increased accessibility	0,474	75
Whole trip feasible with public transportation	0,426	67
All travel info on single App	0,389	61
Free bike rental	0,305	48
Only pedestrian and 0 emissions vehicles area	0,305	48
Whole travel feasible by train	0,298	47
Door to door luggage service	0,221	35
Area closed to vehicles	0,135	21

Source: Ca' Foscari University of Venice (2021b)

Moving from the analytical to the strategic level, a relevant support to this document comes from the contributions developed by the Faculty of Maritime Studies of the University of Rijeka for the definition of the methodology used to elaborate an Action Plan (D.3.3.1) and, above all, an Action Plan for sustainable mobility in the Program area (O.3.5). As reported below, this latter includes the specification of a strategy dedicated to the accessibility of people with special needs or with reduced mobility. With respect to the objectives of the present document, the main limitation characterizing the abovementioned contributions consists in the fact that they both refer primarily to maritime transport.

As far as the first Action Plan is concerned, attributing a significant role to service quality in the first and last mile to efficiently promote the modal shift from the road mode, the deliverable D.3.2.1 suggests an analysis framework for technological solutions which, among the various areas of interest, considers also assistive technologies to improve the accessibility of people with special needs like, for example, the availability of electric wheelchairs, of voice recognition devices and the use of sound signals, etc.

With regard to the Action Plan for sustainable cross-border transport, according to the methodology reported in D.3.3.1, first an analysis of the current status of ports and passenger terminals is carried out through consolidated techniques, such as the SWOT and Gap analysis, and then intervention priorities are identified and seven strategies with the respective actions are

presented, taking into account also the complexity of their implementation and of the temporal resources needed for their realization (O.3.5).
Referring the reader to the mentioned deliverables for further details, in this document only the main elements concerning the mobility of people with special needs are recalled. With respect to the analysis of the facilities and the services offered by the various port terminals, the survey performed by the University of Rijeka has pointed out a high gap between the existing situation and the expected improvement in relation to the needs of people with reduced mobility (meaning that the accessibility of port terminals is quite low) and to the quality and interoperability of ICT services (Table 3).

Table 3: Gap analysis for service improvement of sustainable and multimodal /cross-border passenger terminal ports in function of passenger demands

Gap analysis for service improvement of sustainable and multimodal/cross-border passenger terminal ports in function of passenger demands	Gap level
Deficiency of specific port infrastructure and equipment in function of passenger demands and comfort (proper boarding equipment, passenger short-stay accommodation facilities, luggage management system, sanitary facilities, etc.)	Medium gap
Lack of adequate service activities/infrastructure inside the Port area or in vicinity	Low gap
Lack of facilities/services for passengers with reduced mobility and children	High gap
Lack of communication services through ICT integration which support interoperability	High gap

Source: University of Rijeka (2021)

Based on the analysis results, an Action Plan has been developed, distinguishing 6 themed areas, 7 strategies and 32 actions (O.3.5). As indicated in Table 4, actions for the improvement of facilities and services for people with reduced mobility are included in the second themed area (i.e., services for port terminal passengers), which corresponds also to the main topic of the third strategy. In this regard, Table 4 specifies that interventions should be developed according to people's needs, which means according to the travelers' needs. Such category of actions includes the creation not only of equipment for the embarking and disembarking of the most vulnerable people with reduced mobility, but also of play areas for children and rest areas (like waiting rooms, food courts, medical and health facilities, etc.). It should be underlined that the mentioned deliverable attributes to the interventions proposed in the considered strategy the potential to effectively enhance the competitiveness of port facilities.

Table 4: Strategy and actions specifically dedicated to passenger terminal services

Strategy	Action ID	Proposed measures for the Action Plan
S3 – Fostering the passenger terminal services development in function of passenger demands	1	Fostering for improving and developing a specific port infrastructure and equipment in function of passenger demands and comfort (boarding equipment, passenger short-stay accommodation facilities, luggage management system, sanitary facilities, etc.)
	2	Fostering to provide adequate service activities/infrastructure inside each Port area or in vicinity (passenger long-stay accommodation facilities, food facilities, land gas station, Rent a car/bike, etc.)
	3	Providing adequate facilities/services for passengers with reduced mobility and children
	4	Providing adequate activities and preserving its tourist attractions by promoting sustainable tourism and intermodality
	5	Developing new communication services through ICT integration which support interoperability (Free Wi-Fi availability, ICT tools for providing adequate information, on-line ticket purchasing, etc.)
	6	Developing new and innovative communication services through ICT integration which support Cross border integration and interoperability (single on-line ticket in Cross-border area for different transportation nodes)
	7	Supporting the decision process systems with data storage and technical analyses in function of collecting passenger data

Source: University of Rijeka (2021)

In the last sections, the deliverable O.3.5 defines a road map for each strategy and its respective actions, considering, on one hand, the assigned priorities (low, medium, high) and, on the other hand, the time horizons necessary to actual implementation (short, medium, and long term, which correspond, respectively, to 3, 5 and 7 years). Besides, adopting once again the low-medium-high judgement scale, indications on the technical-organizational complexity of the realization phase

and of the need for financial resources are provided. Figure 2 illustrates the road map for the third strategy. In general terms, on one side, this strategy considers high implementation costs for the infrastructural investment necessary to accommodate the diversified demand but, on the other side, the interventions are characterized by a medium complexity, especially with reference to the measures supporting people with reduced mobility.

Figure 2: Road map for the development of services of passenger terminals in function of the demand

Source: University of Rijeka (2021)

Last but not least, by ranging from the strategic level of mobility "governance" to the actual implementation of measures, the MIMOSA project has faced the issue of the rights of people with reduced mobility both through the realization of a pilot action addressing accessibility in the static sense of the possibility of accessing buildings, spaces, etc. (D.5.2.1), and through the realization of

a feasibility study for the optimization of disabled people accessibility in two maritime ports (D.5.2.3).
As regard the former, the pilot action implemented by the Dubrovnik-Neretva Region (D.5.2.1) has suggested an innovative solution to increase the opportunity of enjoying the sea, which represents the main attraction in the context of tourist flows between Italy and Croatia. Indeed, one city and four villages of the Dubrovnik-Neretva Region tested some aqua lifters to enable people with reduced mobility to enter the water in an autonomous and independent way. This action represents a quite significant initiative for the reference geographical context, i.e., the Program area, in which the volume of tourist flows equals almost to 5 million people per year (D.3.1.1 e O.3.1). Furthermore, the deliverable D.5.2.1 has emphasized that the improvement of cross-border transport services consists of a necessary but not sufficient intervention, which should be integrated by enhancing the accessibility to areas and services at the origin and at the destination of the cross-border transfer.

Figure 3: Aqua lifters implemented in some beach facilities in the Dubrovnik-Neretva Region

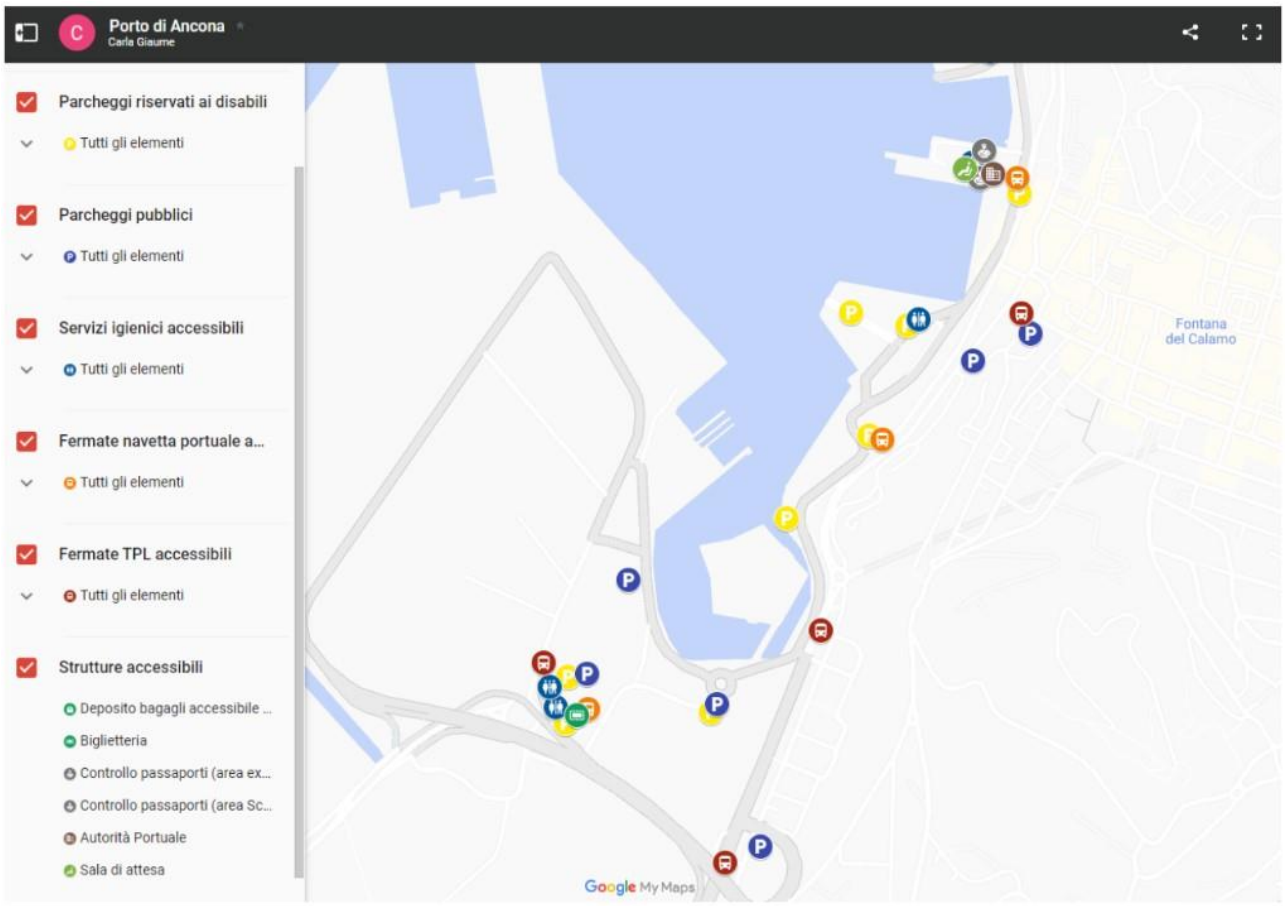
Source: Dubrovnik-Neretva Region (2022).

With respect to the latter pilot action, the Port Network Authority of the Central Adriatic Sea carried out an analysis to optimize the accessibility of disabled people in the Italian ports of Ancona and Pesaro (D.5.2.3), with the aim of verifying the current state of accessible infrastructures and services and of identifying possible advancements for disabled people. Starting from a detailed analysis of the reference legislation (at European, national and regional level) and an on-field monitoring of the status quo, a participatory process involving all the stakeholders (including Associations) has been carried out to determine strengths, weaknesses, opportunities and threats of the two examined maritime ports, bearing in mind the various regulations and specific needs of the different user categories (i.e., physical, sensorial and cognitive-behavioral disabilities).
Among the insights coming from this study, the following aspects should be underlined: the need to strengthen inclusive culture (by raising awareness on disabilities and on accessible transport infrastructures and services), the importance of developing integrated and coordinated actions (in order to avoid isolated accessibility measures), and of fostering digital accessibility. Therefore, the considered study reports an analysis of 8 best practices performed at international and national level and concerning not only maritime transport, but also air transport (like the case of the Miami airport, USA). The objective of such analysis consists of fostering creativity and innovation through the enhancement of knowledge and culture on issues related to the accessibility of people with special needs to transport infrastructures and services.
Finally, the study contains a proposal to modify the page of the Port Network Authority of the Central Adriatic Sea web site dedicated to accessible transport infrastructures and services which are currently available in the ports of Ancona and Pesaro. Taking inspiration from the best practice of the Miami airport, the web page should be developed in an accessible format, in compliance with the international and European standards of web accessibility, thus enabling people with visual and auditory disabilities to read and listen to all its contents. Some of the information available on the web page should be the following:

- a map for each port displaying and indicating accessible infrastructures and services in the port area, integrated with information related to timetables and directions to reach destination. Maps should allow also to filter the available information according to the following facilities:
    - accessible restrooms;
    - parking spaces reserved for people with reduced mobility;
    - access ramps to the main attractions of the port;
    - accessible bus stops in the surroundings and within the port;
    - access points to the ticket office, to the control areas and to docks accessible to people with special needs;
- a list with a brief description of the existing accessible infrastructures and services (in relation with the same facilities displayed on the map). This section should also describe how to reach the port (by bus, taxi, etc.) and illustrate the assistance services provided by the different maritime agencies (e.g., the counter of the ticket office dedicated to people with special needs);

- an index with quick links to the following information related to port accessibility:
- current regulations on accessible mobility for people with special needs;
- maritime transport agencies;
- luggage storage;
- timetables of ferries and cruises arriving at/leaving the port;
- existing public transport and taxi services with the respective contact information;
- port entrances by car;
- contact information of the passenger assistance service (e.g., the company Dorica Port Services – DPS - for the Port of Ancona).

Figure 4: Screenshot of the interactive map of the port of Ancona



Source: Borgato, Giaume e Torta (2023).

4. Recommendations for policy makers

This section aims at providing an additional contribution on the topic of the accessibility and mobility of people with special needs, complemented the abovementioned outputs of the MIMOSA project. Indeed, the objective of the present section is to deliver some recommendations, or insights, whose realization could actually contribute to the complete implementation of the rights of people who, through no fault of their own, have difficulties in interacting with the surrounding environment, and thus in experiencing social inclusion at their fullest. In this respect, social inclusion corresponds to the ultimate goal characterizing all the measures (at normative and strategic level) of every international and/or national Institution which deal with people's universal rights.
Before proceeding with the description of the recommendations developed in the context of the MIMOSA project, attention should be drawn on the following evidence-based facts:

- the new "2021-2030 European Disability Strategy" quantifies disabled people in 80 million people, which corresponds to almost 20% of the European citizens. Proportionally, considering that the total amount of people belonging to the Program area equals to 12 million, people with reduced mobility or with special needs are estimated in about 2,5 million;
- there is a wide range of disabilities (preferably called "different abilities"), each of them requiring specific needs also in terms of accessibility and mobility;
- the actual implementation of rights related to inclusion, equity, independence, and autonomy implies a "social cost", which not only single individuals but also the entire society should take charge of;
- as recognized in the abovementioned European strategy, even though great accomplishments have been already achieved in the last 25 years in the implementation of disabled people's rights, there is still a long way to go which requires significant efforts coming from Institutions, entrepreneurs and citizens, since it entails a profound change in thinking and behavior.

Bearing in mind those facts, this section of the document includes some recommendations which have been formulated considering the principles of law reported in the third section, the information contained in the European strategic documents and the outputs obtained by the MIMOSA Project. Based on the methodological aspects described in the second section, once identified the "missing links" between legislative principles and the actual implementation of rights, the proposed recommendations are intended to contribute to close the existing "gaps". Such methodological approach has been then developed according to two levels of detail, i.e., the strategic and the tactic ones. The former refers to the definition, implementation and monitoring of policies which European and national bodies take charge of, while the latter refers to solutions and measures for which the market is responsible for.

At strategic level, the following measures have been formulated:

- Strategic Measure 1 (SM1): the “European Disability Card” is expected to be created by 2023, following the results of the pilot project which started in 2022 and involved 8 countries, including Italy. Such card aims at guaranteeing consistency in the recognition of the rights of people with special needs among the various European countries. The adoption of a similar approach should be fostered also in Cross-border Cooperation Programs;
- SM2: the new Strategy considers the creation of a European platform which should contain also the inventory related to barriers and hindrances in railway infrastructures. The extension of such initiative to the other transport modes, i.e., air, maritime and road public transport, is recommended;
- SM3: the European Commission already established the “Access City Award”, which has promoted a consistent and transversal approach to enhance city accessibility. Nevertheless, an analogous award could be launched with reference to the accessibility of transport nodes, considering the ability of integrating sustainability, innovation and responsiveness to the needs of people with special needs;
- SM4: as anticipated, ensuring the actual implementation of the rights of people with special needs entails a “social cost” which the entire community should take charge of. At the same time, regulations state that the financial efforts of operators should be “reasonable”. To this end, the performing of a precise demand analysis appears useful to i) evaluate whether efforts are commensurate, ii) monitor the effectiveness of implemented measures, and iii) carry out sensibilization and awareness campaigns. Such activities should be performed in collaboration with the various Associations;
- SM5: the MIMOSA Permanent cross-border Network on Sustainable mobility should support the definition and realization of the abovementioned strategic measures. With the purpose of implementing universal principles, a multitude of Institutional initiatives have been raised both at national and European level. For instance, in 2022 the Italian Ministry of Transport set up a commission to analyze possible advancements in the accessibility to mobility services of people with special needs (MIT, 2023). In this regard, the inclusion in the MIMOSA Permanent cross-border Network charter of an Article specifically dedicated to a similar initiative is recommended.

At tactic level, the following recommendations have been suggested:

- Tactic Measure 1 (TM1): as mentioned by the University of Rijeka in the deliverable dedicated to an overview of technological solutions (D.3.2.1), it appears necessary to address the actual implementation of the “universal design” principles when developing products and services, including ICT, aimed at ensuring the accessibility of people with special needs, and in particular of those with sensorial disabilities. The web page proposed by the Port Network Authority of the Central Adriatic Sea (D.5.2.3) in accordance also with the Regulation (EU) 2019/882 represents a great improvement within the port context. Such initiative could and should be transferred in all the ports of the Program area, becoming the basis for benchmarking analyses;

- TM2: nowadays, in the context of a multi-modal journey, people with special needs have to ask for assistance services, if available, to each single transport operator. This turns out to be very time consuming, inconvenient and discouraging, in contrast to the Green Deal principles. Therefore, according to a multimodal perspective, the development of a web site or a mobile App enabling the reservation of assistance services would certainly facilitate such task, in the face of no particular technological issues. Difficulties could arise in the identification of the subject responsible for the creation and management of the web site or the mobile App, especially at a transnational or cross-border level;
- TM3: Among the various pilot actions tested during the MIMOSA project, innovative solutions have been proposed to increase the accessibility of people with special needs to beach facilities, which are the main tourist attractions in the Program area (please refer to D.5.2.1). As underlined in the project, this kind of initiatives has a very significant role in the attractiveness of cross-border travels, which depends not only on the services provided along the journey itself but also on those available at origin and destination. In this regard, the actual overcoming of physical barriers by 2023 seems a quite unrealistic goal, despite the obligation imposed by European regulations to reach that objective inside buildings. Therefore, it is recommended to develop at least some specific tourist itineraries dedicated to people with special needs, which should be identified in collaboration with the involved Associations and integrated with awareness campaigns to promote them to target groups.

The proposed strategic and tactic measures have been synthesized in Table 5 underlining each specific objective.

Table 5: Proposed strategic and tactic measures

ID	Name	Objective
STRATEGIC MEASURES		
SM1	Promotion of the "European Disability Card"	To ensure consistency among countries in the recognition of rights, also in the context of Cross-border Cooperation Programs
SM2	Promoting the development of an inventory regarding accessible infrastructures and services in transport nodes	To identify barriers and obstacles to the accessibility of transport nodes according to consistent criteria shared at international level
SM3	Creation of a prize for the accessibility of transport nodes	To foster a consistent and horizontal development approach, integrating sustainability, innovation and responsiveness in accommodating specific needs
SM4	Demand analysis concerning people with special needs	1) To evaluate the appropriateness of "social costs" necessary for the implementation of rights 2) To monitor the effectiveness of implemented measures 3) To perform targeted sensibilization/awareness campaigns
SM5	Focus of the MIMOSA Permanent cross-border Network on the rights of people with special needs	To include in the MIMOSA Permanent cross-border Network Charter the mission of supporting European and national authorities in the definition and implementation of the proposed strategic measures
TACTIC MEASURES		
TM1	Development of port web pages according to the principles of universal design	To ensure the accessibility to information to all categories of people with special needs
TM2	Development of a mobile App or web page for a multimodal assistance service	To facilitate the multimodal mobility of people with special needs through the integration and the interoperability of assistance services provided by operators of each individual transport mode
TM3	Creation of accessible tourist itineraries	To increase opportunities to offer accessible and sustainable tourist solutions considering specific needs, also targeted sensibilization/awareness campaigns

5. Concluding remarks

The MIMOSA project has pursued the ambitious goal of improving the multimodality and sustainability of cross-border transport services in the Italy-Croatia Program area by adopting a strategic approach of high-level cooperation, but at the same time looking at the achievement of concrete and visible results which encompass multimodal solutions and the development of innovative and smart technologies, coherently with the European "Green Deal" on mobility. Furthermore, in this context, the MIMOSA Project has intended to offer a "strategic" contribution on the particularly sensitive issue of accessibility of people with special needs or with reduced mobility.

It is evident that this is an issue which cannot be limited to purely economic, environmental and transport considerations. On the contrary, here the third dimension of the broad concept of sustainability (i.e., namely the social one) becomes fundamental. People's rights come into play in their broadest sense. These include the universally recognized principles of social inclusion, non-discrimination, autonomy, and independence.

However, the concrete implementation of these principles is actually a very complex, difficult and long process because it requires not only regulatory interventions and the definition of implementation strategies, but also and, perhaps above all, a radical cultural change of the whole community, both in its institutional components and in its citizens. The elimination of all the barriers which hinder a physiological relationship between a person and her/his surrounding environment cannot ignore an essential passage: people with specific needs, whatever they may be, have to become the main actors of this change, acquiring knowledge and awareness of the possibilities which the Community makes them available also thanks to the incredible technological development.

In this sense, sensibilization and awareness-raising campaigns appear to be of particular importance. They should not be aimed only at gaining the recognition of rights by everyone and, in a sense, of the human, social and economic "value" of a person with special needs, but they should also be oriented towards the different categories of disadvantaged people in order to give them the possibility of fully experiencing social inclusion, in compliance with the universal principles.

Indeed, the MIMOSA project has moved along this direction, starting a path which should be further explored and developed. The Project tackled the topic of the sustainable and smart development of cross-border mobility with particular attention to the requirements of people with special needs, handling such issue in a comprehensive way: i) from the analysis activities which highlighted how the improvement of accessibility for these people is a priority element

recognized by 40% of the persons who participated in a sample survey on the qualitative attributes that transport infrastructure and services should have, ii) to the development of concrete solutions to improve access to natural resources, transport nodes as well as ICT and iii) to the definition of strategic actions that could lead the cross-border transport system to become multimodal, sustainable and more accessible to people with special needs as well.

Notably, comparing the universal principles concerned with people's rights with the current status and the results obtained so far by the MIMOSA project, this document (i.e., D.5.2.2) has elaborated and shared 8 indications, declined according to a double level of governance: a "strategic" and a "tactic" level. The former refers to the definition, implementation and monitoring of policies which are under the responsibility of European and national bodies, while the latter refers to the development of solutions and measures which compete to the "market". The strategic level includes 5 actions corresponding to thematic areas on which the MIMOSA Permanent cross-border Network could support the higher-ranking Institutions along the complex process of implementing the universal rights of people with special needs. The second group instead includes measures targeted to Local Authorities and Operators to implement solutions based on technological innovation with the aim of concretely improving accessibility to infrastructures, transport services, and cultural and natural resources in the Program area.

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